



## City of Albuquerque Information Technology Services Division Data Management

### Bus Location and Direction Metadata Requirements

#### Contact Information

*Who is the contact for this dataset? The contact will be the City employee who is accountable for the data provided in this dataset and can act as front-line support in the event of any questions about the data.*

<b>Name</b>	Joe Saraphon
<b>Department/Division</b>	Transit
<b>Phone</b>	505-724-3113
<b>Email</b>	Saraphon@cabq.gov

#### What Does this Dataset Describe?

*What is the name of this dataset? How should a user identify this dataset in any communication with contact above? Provide a shorter description of the Dataset that can act as a one-line summary of the dataset when dealing with stakeholders. Provide a longer description of the data that can be readily understood by non-technical users.*

Dataset Title	Real-Time Bus Location and Direction
Short Description	Bus location, directionality, time at location
Full Non-Technical Description	
Data is updated every 15 seconds with the bus route, current bus location, directionality and the time the bus was at that location. Each bus route has the following files: Route999.kml, Bus999.kml and Bus999.jpg.	

#### How Should this Dataset be Cited?

*How should external sources refer to this dataset in publications or documentation? Often this will simply be the URL and the date retrieved.*

Each bus route will have the following files, the files will be found in different folders within;

<http://data.cabq.gov/transit/realtime/>

Within the transit director are the following folders and within each folder are the following files:

- image/
  - bus999.jpg
- route/
  - route999.kml
- trace/
  - bus999.kml

## ***Does the Dataset Reflect a Particular Time Period?***

*Provide any date restrictions that may affect the validity of the data. The table fields are defined as follows:*

	<i>Definition</i>
<i>Start Date</i>	<i>Start date of the time period within which this data falls. Format: MM/DD/YYYY HH:MM:SS.</i>
<i>End Date</i>	<i>End date of the time period within which this data falls. Format: MM/DD/YYYY HH:MM:SS.</i>
<i>Dataset Refresh Interval</i>	<i>Time period between Dataset refreshes. Format: “nn [seconds/minutes/hours/days/weeks/months/years]” or the word “Static” if never refreshed.</i>
<i>Data Expiration Date</i>	<i>Date after which the data must be considered stale and no longer of sufficient utility (fit-for-purpose). Format: MM/DD/YYYY HH:MM:SS.</i>
<i>Dataset Review Date</i>	<i>Date after which this dataset will be reviewed by the City for utility (fit-for-purpose) and usage. Format: MM/DD/YYYY HH:MM:SS.</i>
<i>Comments</i>	<i>Specific comments related to any time-specific features of this dataset.</i>

<b>Start Date</b>	N/A
<b>End Date</b>	N/A
<b>Dataset Refresh Interval</b>	Every 15 seconds
<b>Dataset Expiration Date</b>	N/A
<b>Dataset Review Date</b>	N/A

Comments
The files are in the KML format. The format is dictated by Google at <a href="https://developers.google.com/transit/gtfs-realtime/">https://developers.google.com/transit/gtfs-realtime/</a>

## Dataset Definition/Format

*Provide a field-by-field breakdown and definition of each record. This section acts as the formal data dictionary for an individual record.*

The format is dictated by Google at <https://developers.google.com/transit/gtfs-realtime/>.

## Dataset Technical Description

*Provide a technical description of the dataset. This should be a complete technical description aimed at developers and expert users who need to understand the scope, strengths and limitations of the dataset.*

File name	File description
Route999.kml	This file contains the route information. 999 represent the route number.
Bus999.kml	This file contains the bus information. 999 represent the route number.
Bus999.jpg	This file contains the icon for the bus. 999 represent the route number.

## Dataset Assumptions

*What technical and business assumptions are implied in the creation of this dataset? Examples could include the way in which a salary figure was calculated or data that was omitted for a specific reason.*

There are always three and only three files for each Route:

- Route999.kml
- Bus999.kml
- Bus999.jpg

In the file name the 999 represents the route number.

New routes are added about every quarter or when a new bid is approved.

If a file is missing, then the Transit department should be notified using our 3-1-1 service. If you are outside of Albuquerque the number is: 505-768-2000.

## **Who Produced the Dataset?**

*Which department in the City produced this dataset? Note that this might not always be the data owner. An example of this could be a dataset that ITSD produced on behalf of EHD who owned the data.*

The Transit Department, IT Division is responsible for gathering the data sent from the PinPoint X modem aboard each bus, matching it with the Trapeze data from the Trapeze OPS database, computing direction based on GPS data, and publishing it in the format required by Google. Transit IT is responsible for maintaining the data on data.cabq.gov.

## **Who Owns the Data?**

*Where did this data originate? Who owns the data used in this dataset? Note that this might not always be the dataset producer. An example of this could be a dataset that ITSD produced on behalf of EHD who owned the data.*

The Transit Department is the data owner.

## **Why was the Dataset Created?**

*All datasets should have an explicit reason for existence and should, somehow, have value to someone. What is the perceived value that this dataset will bring?*

The dataset was created to allow applications to map the bus route, the location of the bus on the route and the direction the bus is headed.

## **How was the Dataset Created?**

*How was this dataset produced? Was it a manual process? An automated process? What were the main IT systems involved in producing this dataset?*

This data is created by an application (written in-house by Joe Saraphon) that reads the Trapeze Transit database and the data being transmitted by the on-board modems and generates a file uploaded to data.cabq.gov. This process occurs approximately every 15 seconds.

## **What Similar or Related Data Should the User be Aware of?**

*Are there any other datasets available that may contain related or similar information? Might there be situations in which these other datasets might be a better alternative?*

Please see the metadata file in each of the dataset folders for information on how to use the information.

Transit Scheduled Route

<http://data.cabq.gov/transit/realtime/route/allroutes.kml>

<http://data.cabq.gov/transit/realtime/route/routeX.kml>

Where X is the route number between 1 and 9.

<http://data.cabq.gov/transit/realtime/route/routeXX.kml>

Where XX is the route number between 10 and 99

<http://data.cabq.gov/transit/realtime/route/routeXXX.kml>

Where XXX is the route number between 100 and 999.

<http://data.cabq.gov/transit/realtime/route/routeXXXX.kml>

Where XXXX is the route number between 1000 and 9999

The files are comma delimited with field names in the first row; the format is dictated by Google at <https://developers.google.com/transit/gtfs/reference>

## ***How Reliable are the Data?***

*Are there any concerns about overall data reliability? Are there any data problems that the user needs to be aware of? Are there any constraints with data accuracy? What levels of confidence with this dataset could the user reasonably assume?*

The data used in this dataset is derived from Transit production operational data located in Trapeze. The Trapeze database is filled nightly with the next day's assignment (bus 705 is going to drive route 66 on that day) using a manual process. If a bus is removed from a route or a changeout occurs, there is a risk that the Maintenance or Dispatch group may not immediately update Trapeze, a manual process. If this occurs there will be an outage (1 run on 1 route by 1 bus) of information. In the normal course of business, the data is always available.

Data on data.cabq.gov is accessed via the city network. If the city has an outage, then the data will not be available. The city has a 99.5% up-time requirement. The city has scheduled maintenance on Sunday mornings; however it is the goal of the city to not interrupted service on data.cabq.gov.

## ***How Well Have the Observations Been Checked?***

*What quality assurance steps have been performed? Sometimes, a third-party verification/audit process may also be required. If so, provide the name of the third-party who performed the verification.*

This data has been verified by the data owner, Transit IT.

## ***Are there Legal Restrictions on the Access or Use of the Data?***

*Are there any specific legal or compliance restrictions for this data? How might this affect the way in which end users might access and use this data?*

There are no legal restrictions on the access or use of the data.

## ***Legal Disclaimer***

The City's standard copyright, disclaimers and legal statements may be found at <http://www.cabq.gov/about/legal>. The City data policy governing data.cabq.gov may be found at <http://data.cabq.gov/policy/>.